



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/812,725

03/30/2004

David E. Stout

H0006224-1070

4813

7590

04/04/2006

Robert Desmond  
Honeywell International, Inc.  
Law Dept. AB2  
P.O.Box 2245  
Morristown, NJ 07962

EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

12

<b>Office Action Summary</b>	<b>Application No.</b> 10/812,725	<b>Applicant(s)</b> STOUT ET AL.	
	<b>Examiner</b> Dang D. Le	<b>Art Unit</b> 2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-9 and 11-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1,3-9 and 11-20 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 1/26/06 have been fully considered but they are not persuasive. The applicant's argument is on the ground that "nowhere does Dade et al. disclose, or even remotely suggest, at least that one of the stators is fixedly coupled to the housing, extends into the interior cavity, is positioned within the space defined by one of the rotors, and is substantially aligned with the driveshaft along the axis". The examiner disagrees because Dade et al. clearly shows in Figure 1 and discloses the feature at column 2, line 50 to column 3, line 10.

As a result, the rejection is still deemed proper and repeated hereinafter.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Dade et al. (5,783,893).

Regarding claims 1 and 15, Dade et al. shows a generator (Figure 1) comprising:

- A rotor frame including a cylindrical body, the cylindrical body (54, 28, Figure 1) having an inner surface, an outer surface, a first end (right), and a second end, the inner surface defining an inner cavity;

Art Unit: 2834

- A drive shaft (22) coupled to the cylindrical body first end along an axis;
- A generator housing (12) having an inner surface that defines a substantially cylindrical cavity about the axis;
- A first rotor armature (98) coupled to the inner surface of the cylindrical body, the first rotor armature defining a space to receive a stator assembly (38);
- A second rotor armature (90) coupled to the outer surface of the cylindrical body and electrically coupled (column 4, line 25) to the first rotor armature;
- A first stator (38) fixedly coupled (through 40, 42, 46) to the generator housing (12) and extending into the interior cavity via the cylindrical body second end (left), the first stator positioned within the space defined by the first rotor armature and substantially aligned with the driveshaft along the axis; and
- A second stator (48) surrounding the second rotor armature and fixedly coupled to the generator housing (12) inner surface (through 52).

Regarding claims 11-14, it is noted that Dade et al. also shows all of the limitations of the claimed invention (Figure 1) including a flange (16) coupled to the generator housing (12) to enclose the first stator, second stator, first rotor armature and second rotor armature, the flange including a passage (near 20) to permit the driveshaft to extend outside the generator housing, bearings (24, 26), windings (84, 86, Figure 3).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2834

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3, 4, 7-9, 16, 17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dade et al. in view of Syverson (3,676,764).

Regarding claims 3, 16, 19, and 20, Dade et al. shows all of the limitations of the claimed invention except for a direct current applied to the first stator generator generates a static magnetic field which induce an alternating current in the first rotor armature when the drive shaft is rotated.

Syverson teaches to apply a direct current to the first stator generator (core 15 and winding 21) in order to generate a static magnetic field which induce an alternating current in the first rotor armature (core 14 and winding 23) when the drive shaft is rotated for the purpose of making a generator without using brushes and commutator.

Since Dade et al. and Syverson are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

Art Unit: 2834

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to apply a direct current to the first stator generator in order to generate a static magnetic field which induce an alternating current in the first rotor armature when the drive shaft is rotated as taught by Syverson for the purpose discussed above.

Regarding claims 4, 7-9, and 17, it is noted that Syverson also shows all of the limitations of the claimed invention including the rectifying diodes (28a) coupled between first and second rotor armatures (22, 23) and induced alternating current in the stator.

7. Claims 5, 6, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dade et al. in view of Syverson as applied to claim 4 above and further in view of Giuffrida (4,647,806).

Regarding claims 5, 6, and 18, the machine of Dade et al. modified by Syverson includes all of the limitations of the claimed invention except for a full-wave bridge and a diode ring.

Giuffrida teaches to use a full-wave bridge and a diode ring for the purpose of providing clean power and mounting the diodes.

Since Dade et al., Syverson, and Giuffrida are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a full-wave bridge and a diode ring as taught by Giuffrida for the purposes discussed above.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Information on How to Contact USPTO***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D. Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

3/31/06

A handwritten signature in black ink, appearing to read "Dong L. G.", with a stylized, cursive script.

**DANGLE  
PRIMARY EXAMINER**